

# AboveSoft Utilities

Para la versión en español clickée: [http://www.abovesoft.com/AbUtils\\_sp.pdf](http://www.abovesoft.com/AbUtils_sp.pdf)



## Product Features

AboveSoft Utilities includes the following applications:

- **AboveSoft Analyzer:** Analyzes ABAP/4 code to detect performance problems. Calculates ABAP/4 metrics. Automatically generates code Diagrams. Infers documentation from code. Generates Productivity & Quality charts. Provides an SQL Optimizer for the Open SQL SELECT clauses.
- **AboveSoft Predictor:** Estimates Project's development time and expenditure. Preconfigured for SAP ABAP & BW development Projects.
- **BIG Code Generator:** Generates Batch Input interfaces and BAPI-based interfaces for ABAP/4.

AboveSoft Utilities general features:

- Establishes an RFC connection to an SAP system.
- Does not require to install components on SAP side.
- Automatic update from the internet.
- On-line help.
- The product is compatible with most SAP solutions, including SAP R/3®, the mySAP™ ERP application, NetWeaver ECC 5.0, NetWeaver ECC 6.0 and mySAP Business Suite. Even if intended for R/3 and its successors, the product is also compatible with other solutions such as CRM and BW.

## AboveSoft Analyzer

### ***Open SQL Performance Optimizer:***

- Analyzes ABAP/4 SQL code to detect performance problems.
- Suggests changes to improve performance (such as to invert the Join clauses, to eliminate the asterisk and to change the WHERE clauses).

### **Metrics calculation for ABAP/4:**

- Lines of Code (LOC);
- Source Lines of Code (SLOC);
- Developer Effort;
- SQL Quality;
- Minimum SQL Quality found in a code;
- Cyclomatic Complexity per module;
- Max. Cyclomatic Complexity found in a module;
- Comment Ratio;
- Average SLOC per module;
- Max. SLOC found in a module;
- Cyclomatic Complexity per SLOC;
- Number of Subroutines;
- Parameter-Passing Subroutines Ratio.

### **Developer Productivity and Code Quality Charts:**

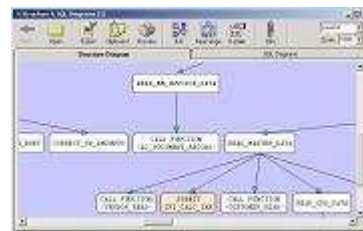
- Productivity is calculated based on a template that measures the effort by the complexity of the instructions used by the developer (predefined template which can also be customized by the user).
- Quality based on the expected performance of the Open SQL SELECT clauses.

## Code Diagrams:

- Automatically generates Structure Diagrams for the structured code.
- Automatically generates Class Diagrams for ABAP Objects' global classes and interfaces.
- Automatically generates Entity-Relationship Diagrams based on the objects found in a program.
- Allows to generate Entity-Relationship Diagrams based on the objects found in the SAP dictionary.
- Automatically generates SQL Diagrams for the sql code found.



Entity-Relationship Diagrams for the SAP Dictionary.



Structure Diagrams for the ABAP/4 code.



Class Diagrams for Global Classes and Interfaces.



SQL Diagrams for the Open SQL SELECT clauses.

## Open SQL SELECT clauses report:

- Indicates which indexes can be totally or partially used;
- Indicates if the asterisk is used;
- Considers the table stipulated size;
- Excludes those buffered tables from the calculation;
- Generates a score for each SQL clause, a score for each source code and an overall score for the set of programs included in the analysis.

## Code Quality:

- Hardcode Detection specialized for ABAP/4; excludes BDC DATA creation (Batch Input sessions), excludes function names and transaction codes on *Call Transaction* calls, customizable to exclude numbers.
- Detects Broken Naming Conventions defined by the user;
- Detects Broken Rules defined by the user (a template is provided to detect non-permitted updates to standard tables).

## Search for Programs:

- Possibility of searching for programs that contain specified substrings (exact phrase, all of the words, some of the words, complex patterns), by development and by date.
- Allows to create developer groups (e.g. to analyze the performance of a consulting company vs. another).
- Massive execution of analysis, massive search for hardcode, massive program download.

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## Other features:

- Infers the technical documentation from comments found in the code and also generates pseudocomments based on the calls found in the code.
- Allows to compare the average developer performance –quality and productivity- against other companies that use the same tool.
- Allows to detect Dead-Code when generating the structure diagram.
- Allows to navigate from the Structure Diagram to the program/line that generated each node.

## BIG Code Generator

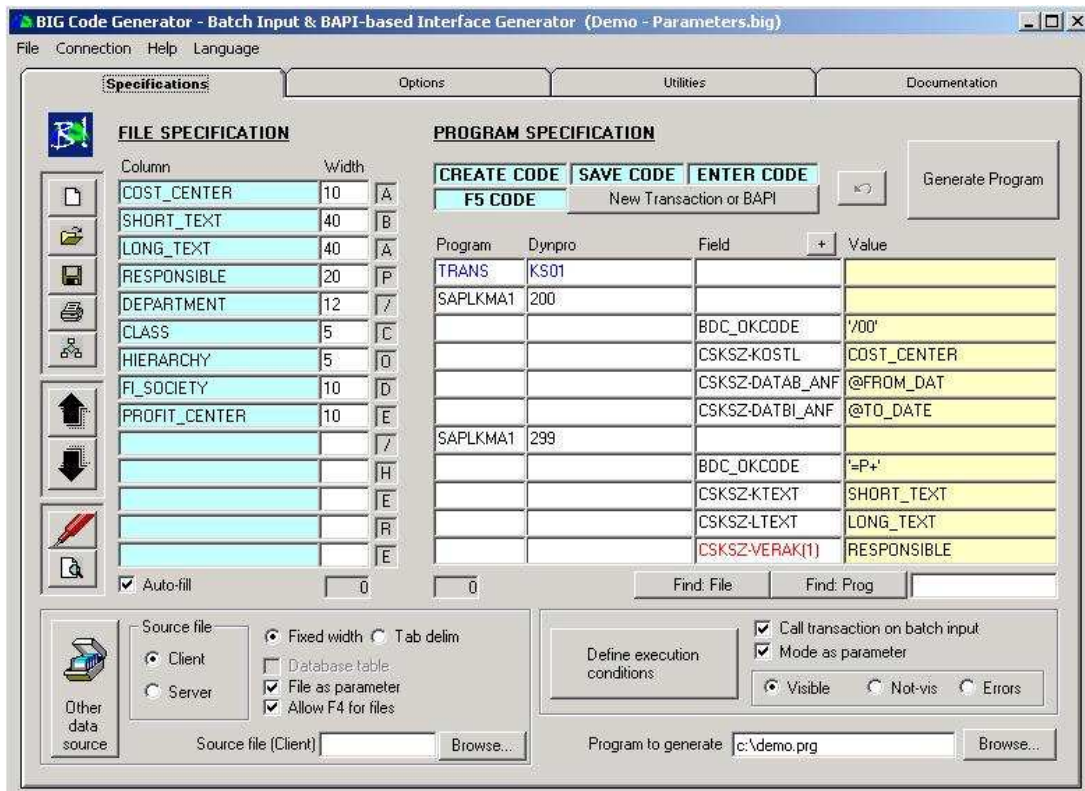
### Automatic generation of Batch Input programs:

- Automatically retrieves the recorded Batch Input transactions.
- Generates Call Transaction programs and BDC session programs.
- Supports step-loops (screen tables).
- Supports data input from one or more external files (or the developer can manually define the data input).
- For simple transactions (type one record->one transaction) the time it takes to generate a program is less than 10 minutes, for more complex transactions it significantly reduces the time it takes to generate a program.

### Automatic generation of BAPI-based input programs:

- Provides a BAPI locator that allows to quickly find the BAPI you intend to use (allowing to search for text inside the BAPI help).
- Defines the necessary structures for the data input using the selected BAPI.
- Automatically generates the programs for BAPI-based input program from external sources.

### BIG Code Generator main screen:



## AboveSoft Predictor

### Graphical Editor for Estimation Templates

- A graphical editor is provided which is used to create Estimation Templates in a few minutes.

### Time Estimation for Development Projects:

- Generates time estimations based on a predefined template for ABAP/4, which assigns minutes to each type of functionality that is developed.
- The template establishes a node hierarchy (questions), which depending on the value of each parent node can generate multiple children nodes.
- Estimations are adaptive. An estimation can be adjusted by the Project actual duration value, affecting future estimations which involve similar functionalities.
- Considers the productivity loss derived from adding personnel to a project, by using an exponential regression function which calculates the logical number of developers involved.
- Allows to establish a number of daily working hours, weekly working hours and holidays.

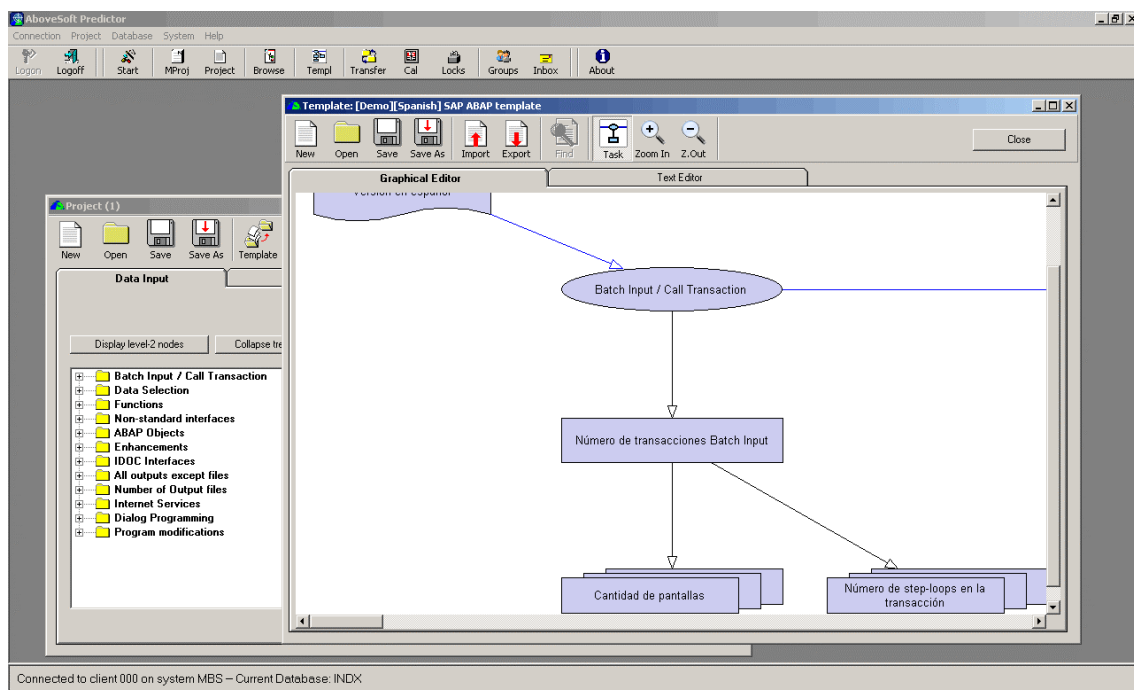
### Expenditure Estimation for a Project:

- Uses the Project time estimation (mentioned above) or it's possible to use a template which allows to directly enter the Project duration.
- Allows to enter a daily rate or a weekly rate, allows the application to calculate the extra hours.
- When ending a Project it's possible to enter its actual duration, letting the application calculate the actual Project expenditure.

### MultiProject feature for Project Managers

- When dealing with Projects that involve multiple teams (e.g. a Dashboard which requires extracting information from an ERP system, creating data models in BW and showing the information in a Web environment), a Project Manager can select multiple Estimation Templates and assign each one to a team. After each team completes the estimations, the Project Manager can check the whole estimates in a single screen.

### Some AboveSoft Predictor screenshots:





## Intended Users

### **AboveSoft Analyzer:**

**Developers:** To improve the code while they codify. To generate the technical documentation once the developments are over. To better understand non-owned developments which need to be modified.

**Analysts:** To quickly find the use of hardcode. To generate the technical documentation for non-documented developments. To estimate the performance of SQL clauses and thus the expected performance for the program. To count on metrics that help to document.

**Project Leaders:** To compare the performance of the group of developers vs. another group from a different company. To compare the performance of different developer subgroups within the same company (e.g. developers from consulting company A vs. consulting company B).

**Quality Assurance Analysts:** To count on ABAP/4 development metrics (for structured programming as well as for object oriented programming).

### **BIG Code Generator:**

**Developers:** To generate Batch Input programs in minutes. To quickly find BAPIs. To reduce the development time needed to complete a BAPI-based data input program.

**Analysts (technical and non-technical):** To generate Batch Input programs with no need to have technical knowledge. To document more complex Batch Input programs and to minimize the developers' effort.

### **AboveSoft Predictor:**

**Developers, Analysts and Project Leaders:** To rely on a uniform and evolutive estimation method, which allows to estimate a project duration and cost in a simple way. To generate the estimation process documentation.

**Project Managers:** To assign estimation tasks to different teams and consolidate the results in a single screen.

**Click the link below to download the software evaluation version:**

<http://www.abovesoft.com/dwnutilen.html>

